

**STATE OF IOWA**  
**BEFORE THE IOWA UTILITIES BOARD**

<b>IN RE:</b>  <b>REVIEW OF ELECTRIC INTERCONNECTION OF DISTRIBUTED GENERATION FACILITIES RULES [199 IAC CHAPTER 45]</b>	<b>DOCKET NO. RMU-2016-0003</b>
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**IPL COMMENTS – CHAPTER 45**

In response to the Order Requesting Additional Comments (October 18 Order) issued by the Iowa Utilities Board (Board) in this docket and the Office of Consumer Advocate's (OCA) Statement of Position (Statement of Position) filed with the Board on October 28, 2016, Interstate Power and Light Company (IPL) submits the following comments.

**SUMMARY**

IPL continues to support its initial comments on (1) 199 IAC 45.2, (2) 199 IAC 45.11, and (3) the suggested change to the interconnection agreements/forms. In its October 18 Order, the Board requested additional information with which to evaluate the effect of the proposed revisions. IPL has endeavored to provide that information as follows:

(1) 199 IAC 45.2 and 45.11

IPL proposed the addition of "affected system" language to both subrules to ensure that Qualified Facilities (QF) are required to identify any

adverse impacts to both the distribution and affected systems, such as the transmission system.<sup>1</sup>

IPL expects that, in the event the interconnection can or will impact an affected system, the interconnecting utility may coordinate efforts with the affected system owner to determine whether adverse impacts may result from the interconnection of the QF. As the Interconnection Customer is responsible for the cost of feasibility, system, and facility studies in the interconnection process, the Interconnection Customer should likewise be responsible for any additional cost for affected system studies and any subsequent construction resulting from the installation of the QF.

IPL appreciates OCA's concerns that there may be circumstances in which the Interconnecting Customer<sup>2</sup> could bear additional costs if there are impacts to an affected system. IPL has no control over an affected system, and consequently, is limited in its ability to evaluate whether an Interconnecting Customer's QF will have a negative impact on the affected system. Accordingly, the affected system owner may need to determine whether any studies or upgrades are required.

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<sup>1</sup> "Affected system" means an electric system not owned or operated by the utility reviewing the interconnection request that could suffer an adverse system impact from the proposed interconnection. 199 IAC 45.1.

<sup>2</sup> IPL notes that the term "Interconnecting Customer" applies equally to QF developers, rather than only to IPL customers installing distributed generation. IPL customers should not bear QF developer costs for connecting to IPL's distribution system or any affected system costs caused by the QF developer's interconnection. To provide additional perspective: Of the approximately 100 MW of distributed generation on IPL's distribution system, 60-70 percent is developer-driven. Of the approximately 120 MW in IPL's interconnection queue, which includes projects under construction and projects planned for 2017-2018, 75-80 percent is developer-driven.

Moreover, IPL currently faces situations where involvement of an affected system owner is or may be required in order to ensure system reliability.<sup>3</sup> IPL has received certain interconnection requests where the amount of anticipated QF energy generated will exceed the distribution system load at the point of interconnection.<sup>4</sup> As a result of the QF energy generation exceeding the load at the point of interconnection, energy will flow from IPL's distribution system onto the transmission system – an “affected system.” The transmission system owner is better positioned to determine whether there will be a negative effect on its system, whether additional studies are needed, and whether any upgrades to the affected system are required. For these reasons, IPL finds it reasonable to add “affected system” to both subrules.

## (2) Interconnection Agreements / Forms

Since the Interconnection Application and Agreement forms will be removed from the rules, IPL respectfully requests clarification from the Board regarding timing and notification of implementation of any proposed changes to the forms.

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<sup>3</sup> IPL anticipates that the likelihood of such situations to increase over time.

<sup>4</sup> To further clarify, the term “load” used above refers to transformer load at the distribution substation – not “behind the meter” load.

Regarding including ownership structure on the application form (owner, lease, third-party PPA, or other):

The Board, OCA, U.S. Energy Information Administration, Smart Electric Power Alliance and other stakeholders have inquired about the number of interconnections resulting from third-party power purchase agreements (third-party PPA) and currently, IPL is unable to provide accurate data. No mechanism exists within the current interconnection process to identify such ownership structures; from an IPL forecasting and planning perspective, information regarding the ownership structure of interconnecting customers will allow IPL to more accurately forecast any fluctuations or increases in ownership structures.

Regarding including a field for the meter number for all interconnection applications:

IPL proposed the addition of this requirement on the application form because some account holders or properties may have multiple electric meters. IPL often must clarify which meter is being interconnected as an account number does not always correlate with a single electric meter. Identifying this information will assist IPL in processing applications in a timely manner.

Regarding including a question to determine if the application is to expand an existing distributed generation facility:

IPL proposed the addition of this question because it has seen an increased number of applications adding to existing distributed generation facilities. In many cases, the Interconnection Customer does not include the existing system in the initial application, contrary to IAC 199-45.5(1) & (2)

Furthermore, distributed generation projects that are expanding from another site may require upgrades if the existing infrastructure does not meet current safety, technical, or regulation compliance standards.

Regarding specifying that nameplate capacity should be an AC rating:

In IPL's experience, applications have been submitted with a variety of interpretations of what is to be provided for nameplate capacity. IPL has received DC or panel ratings, which are not sufficient for completing the application and this lack of clarity has served to slow the application review process. The application currently asks for the "Generator and Prime Mover Information." This information has been filled out in myriad ways, resulting in a lack of consistency. Requiring the nameplate rating to be AC will provide consistent applications from dealers and customers, and facilitate reporting from IPL, since the utility operates in AC.

Regarding the addition of questions related to system output and impacts:

IPL has received applications that provide little or no data related to expected production output due to tilt, shading, or other impeding or facilitating factors. In addition to this information improving IPL's system planning efforts, these questions provide a benefit to distributed generation customers. Answering these questions ensure that equipment vendors and installers must make transparent to customers what system output and performance is expected beyond the standard capacity rating.

Regarding the need for information for Inverter Based Facilities for Level 1 applications:

The current Level 1 application does not request any information on the inverter. With a potential increase to the acceptable capacity for Level 1, IPL believes that requiring an interconnecting customer to provide this information is of increasing importance, and will assist IPL in processing applications in a timely manner. Information on inverters is important because the inverter is the crucial component in evaluating the interconnection and subsequent parallel operation with IPL. The information required to evaluate an inverter based system is not necessarily present on the inverter specification sheet(s) provided by the Interconnection Customer. Providing this data on the application will ensure that the utility has access to this information.

Regarding language on Certificate of Completion within the Terms and Conditions:

IPL believes that it is not currently clear to customers that a system cannot become operational until an electrical inspection is completed. The current Terms and Conditions for Interconnection imply that once an Electrical Inspection, Interconnection Customer completed Certificate of Completion, and Witness Test are complete/waived, the interconnection customer can begin operation. Although this is mostly true, the Certificate of Completion must be executed and delivered to the Interconnection Customer before operation begins. IPL currently must exchange the meter to a bi-directional meter; with a waived Witness Test, the installation could,

and installations have, failed to have a meter installed due to labeling and/or disconnect violations once IPL is onsite. This document advises the interconnection customer that all requirements are complete and by IPL signing under the “Acceptance and Final Approval for Interconnection (for utility use only),” that it is then acceptable to operate the distributed generation facility.

Regarding third-party testing for anti-islanding certification:

IPL has seen a steady increase in Level 4 applications where anti-islanding measures are instituted. Interconnection customers state the difficulty acquiring certifications for anti-islanding that meet the Nationally Recognized Testing Laboratory (NRTL) as compliant with ANSI/IEEE Standard 1547; therefore, IPL is willing to review other third-party testing done on such equipment to meet said qualifications. The third-party testing must be comparable in scope and quality to that which would be performed by NRTL in order for IPL to consider accepting the third-party testing.

Regarding the affected system study addition to the Interconnection System Impact Study Agreement:

This follows on IPL’s comments as described above for subrules 199 IAC 45.2 and 45.11.

Interconnection System Impact Study Agreement:

In previous comments, IPL suggested adding language regarding affected system study to the System Impact Study Agreement. IPL would like to replace the language it proposed with the following:

7.1 If the utility and the affected system owner determine that an affected system study is required, the utility will request an estimate of the study's cost and timeline from the affected system owner. The transmittal of the interconnection system impact study shall be extended to allow for incorporation of the affected system impact study upon its conclusion.

### **CONCLUSION**

IPL appreciates the Board's and the Board Staff's efforts in updating its rules. IPL submits these Comments in order to aid the Board in addressing any additional areas that may need refining and to promote clarification of certain provisions to support timely and accurate implementation and compliance.

**WHEREFORE**, Interstate Power and Light Company respectfully requests that the Iowa Utilities Board give due consideration to IPL's Comments regarding the 199 IAC Chapter 45 electric interconnection of distributed generation facilities rules.

DATED this 7<sup>th</sup> day of November, 2016.

Respectfully submitted,

**INTERSTATE POWER AND LIGHT  
COMPANY**

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